

CLAIMS

1. An aircraft ground power connector comprising:

(a) a plurality of electrical contact pins embedded in an insulating housing

wherein each pin has a male end and female end and is arranged in the housing so that

5 the male ends are protruding from a male side of the connector, and the female ends of the pins (i) are recessed in a female side of the connector, (ii) have a shape, length, and diameter adapted to permit them to receive a male pin, and (iii) have slots in the sides thereof;

(b) wherein the insulating housing has at least two layers of insulating material

10 arranged perpendicular to the direction of the pins, a first layer of insulating material is positioned on the female side of the connector, the first layer and the portion of the female end of the pins embedded therein are shaped to prevent the pin from being pushed out of the female side of the connector; and a second layer of insulating material is positioned so that at least a portion of the slotted female ends are embedded
15 therein, and the second layer is shaped so that it applies pressure to the outer periphery of at least one female end sufficient to reduce the size of its inner periphery; and

(c) a releasable fastener that holds the first and second layers of the insulating material together.

2. The connector of claim 1 attached to at least one male electrical pin on an aircraft exterior, wherein the female end of the connector pin applies a sphincter force to the male pin on the aircraft exterior.

5 3. The connector of claim 2 wherein the female side on the connector is attached to a ground power plug, and the sphincter force is greater than the force required to uncouple the plug from the connector.

10 4. The connector of claim 3 wherein removal is achieved by loosening holding screw/members and tightening ejection screw/members.